

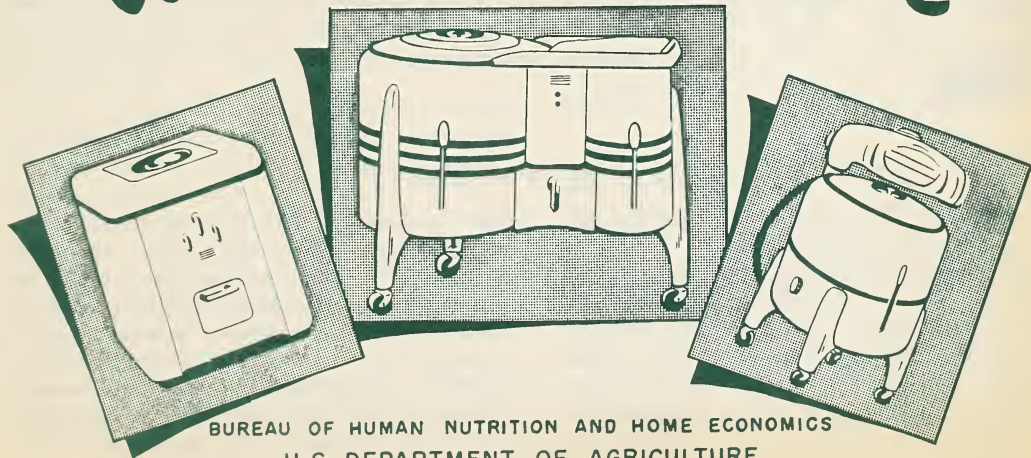
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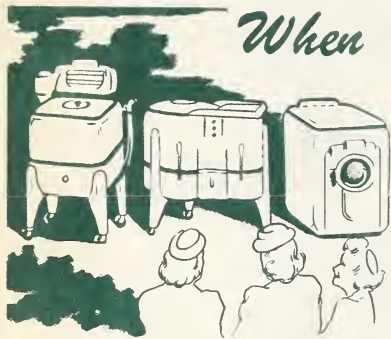


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# HOW TO CHOOSE AND USE YOUR Washing Machine



BUREAU OF HUMAN NUTRITION AND HOME ECONOMICS  
U.S. DEPARTMENT OF AGRICULTURE



## *When you buy a washing machine --*

When you look for a new washing machine, you'll find on the market many makes and models, at a wide range in price. They differ in design and appearance, in quality of materials and workmanship, in timesaving and labor-saving features. Your problem is to choose the washer that best meets your needs. This publication points out some of the things to consider--some of the details to check in order to decide which machine will suit you best.

### WILL IT BE AN AUTOMATIC ?

Your first question will probably be, "Shall I buy an automatic washer?" There is no question that the automatic machine saves time and labor. Just put in the clothes, set the controls, add soap...then there's nothing more for you to do until the washing is ready for the line. The machine fills itself with water at the right temperature...washes the clothes...rinses them...spins

them damp-dry. The tub is cleaned and drained during the drying process; only the trap needs to be cleaned of lint. With an automatic washer no laundry tubs are needed.

The automatic washer can be used only if there is a water system in the house. Successful results depend on a plentiful supply of running hot and cold water--reasonably soft. Water pressure is important, too.

Before you buy an automatic machine be sure your water system will provide the pressure necessary for satisfactory performance. Find out also if there will be any special problems of installation in your home for the model you are considering.

Cost is another point to think about. An automatic machine is more expensive to buy

than the nonautomatic type, and there may be extra charges for installing the washer. Also, upkeep may cost more--the mechanism is more complicated, so there's more to get out of order. Whether the investment is worth while will depend on how big a part of your work the washing is, how much the saving of time and labor means to you.

## WRINGER OR SPINNER ?

If you decide on a nonautomatic or "standard" type washer, your next most important choice may be between a machine with a wringer and one with a spinner.

There are many wringer models, a few machines with spinners. Wringers and spinners can do equally good jobs--both leave clothes damp-dry, ready for hanging on the line. A spinner takes care of a whole tubful of clothes at once; with a wringer the clothes are fed in piece by piece. Which to choose is largely a matter of what you yourself want.

### Features of the Spinner

The spinner, a metal basket, forces water from the clothes as it whirls at high speed. The water goes back into the washer or is drained out of the machine. In most models the spinner has its own tub, separate from the washer tub. When using this type you lift the clothes by hand from one tub to the other. The machine is designed so you can use both washer and spinner at once and so save time--one load of clothes can be damp-dried while another is being washed.

There are also spinner machines that do the washing, rinsing, and damp-drying in one tub. The cylinder-type washing device is also the spinner basket. With this type machine you handle the clothes less, but only one operation can go on at a time.

In the spinner there's no danger of tearing off buttons or damaging buckles, hooks, and zippers. The spinner leaves the clothes less wrinkled than does a wringer. Such articles as blankets, comforters, and pillows are more likely to come out soft and fluffy.

### Features of a Wringer

Safety is of first importance in a power wringer. If you're buying a wringer machine check the position of the emergency release which separates the rolls and stops them if clothing, fingers, or hair should be caught. Be sure the release is within easy reach from any position at the machine. Be sure, too, that it works at a touch.

Wringer rolls may be hard or soft rubber--

sometimes the lower roll is hard and the upper one soft. Large, soft "balloon" rolls are easier on buttons and other fasteners than the hard-rubber type. They adjust more readily to different thicknesses of material and do not press in such heavy creases.

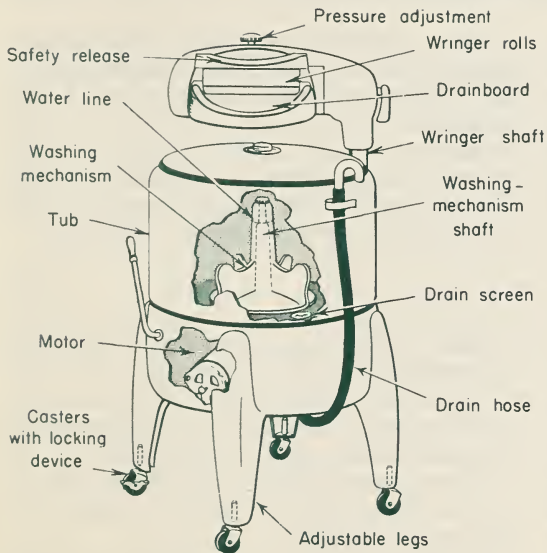
Some wringers have an automatic control that keeps pressure the same whether the article going through is thick or thin. On a wringer without this feature, you'll find a hand screw to regulate pressure. Sometimes there's a scale to show how far to turn the screw for light, medium, and heavy materials.

Wringers are built to swing around so you can use them between two laundry tubs as well as between washer and tub. Usually the wringer locks in at least four positions.

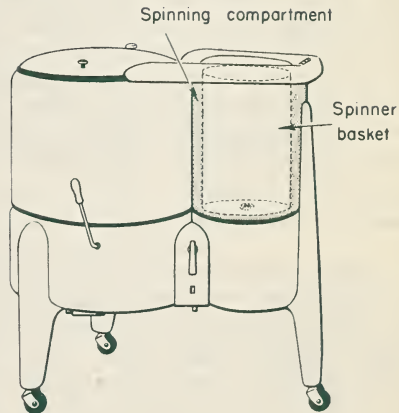
Check the balance of the empty machine with wringer in each position. Be sure the machine won't upset when wringer is swung away from it.

Present-day wringers have drainboards that adjust automatically when the direction of the rolls is reversed.

## WRINGER TYPE



## SPINNER TYPE



The parts on your washing machine may not be exactly like those shown in these drawings. If you cannot locate them on your machine, check with your serviceman.

## WHAT TO EXPECT IN YOUR WASHING MACHINE

A well-built washer, whatever the type, is made from sturdy materials, well-braced and welded. It is free from sharp edges and rough screw and rivet heads that might tear clothes. Parts that come in contact with clothes are rustproof. Gears are enclosed so that nothing can get caught in them. Tub and motor are mounted on rubber or hung on springs to lessen vibration and noise.

### Finishes

On a modern washing machine you can expect an attractive and serviceable finish inside and out. For the tub most manufacturers use porcelain enamel on sheet steel. It is easy to keep clean, moderate in cost. Though any porcelain-enamel finish may crack or chip from sharp blows, a good quality will give satisfactory service. If damaged, however, porcelain enamel cannot be repaired satisfactorily at home.

Tubs are sometimes made of aluminum or nickeled copper, both long-wearing materials. Nickeled copper is easy to keep bright and shiny.

The finish most used on washing machine framework and cabinets is synthetic enamel. This is easy to care for and wears well. If scratched or nicked it can be touched up.

### The Motor

Many washers have motors with sealed-in lubricant and need no re-oiling.

A desirable feature on the motor is a protective device that cuts off the electric current if the machine is overloaded.

If you have a 32-volt home electric plant, you can find machines with motors that operate on that voltage.

For homes without electricity there are washers operated by gasoline engines. Otherwise they are like the electric machines.



## CONSIDER CAPACITY

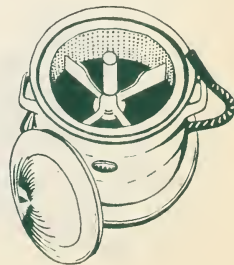
Before you decide on your washer, you'll want to find out about its capacity--how big a load it will take. Capacity is usually measured by the number of pounds of clothes that can be washed at one time. In standard-size machines, designed for ordinary family washings, this ranges from 6 to 10 pounds.

To make your choice, you'll need to consider, of course, how big your washing usually is. Think, too, about the kinds of clothes you have to wash and how you sort them--that is, how they divide into washer loads. If you wash only once a week, you'll probably want a machine that will take the whole washing in the fewest possible loads. But if you prefer to wash oftener and less at a time, a smaller size may be better.

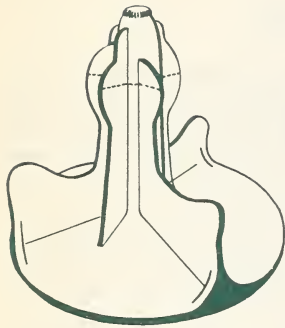
If water is scarce, if heating it is difficult or expensive, if your water rate is high, or if pumping is a problem, find out how much water a machine uses. Some take more than others for the same size load.

*Double-tub washers.*--Some manufacturers make twin-tub wringer machines that give double capacity and speed up the washday job. You can wash two loads at the same time, or use one tub for rinsing while you are washing in the other.

*Portable washers.*--For small washings there are portable machines that hold 2 to 3 pounds of clothes. Some have spinners, some have hand-operated wringers, others have no provision for wringing. These small washers are very handy for baby clothes and other small things you want to keep separate from the family laundry. But they do not satisfactorily take the place of a standard-size machine, even for a small family if all the washing is done at home.



## NOTE THE WASHING MECHANISM

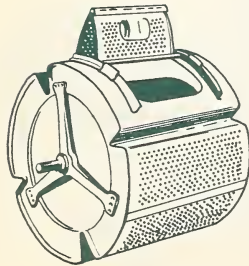


The washing mechanism is the device inside the washer tub that moves the clothes through the water. You'll see when you look at machines that no two manufacturers use exactly the same design of washing device. And there is no way to judge how well a machine washes until you've tried it yourself. Opinions of friends who have had experience with different models may be helpful. But remember, the results you get depend just as much on the way you use your washer as on the washing mechanism.

*Agitator.*--The most commonly used washing device is the agitator. It consists of fins or blades on a central post. Fitted over a shaft in the tub, the agitator turns back and forth, swishing clothes through the water. Agitators differ in size, shape, number, arrangement of blades, and are called by various names.

*Cylinder.*--This mechanism is a cylinder with holes; it fits into the tub and holds the clothes. The cylinder revolves--usually reversing its direction at intervals--and the water is forced in and out through the holes. Projections or "baffles" inside the cylinder carry the clothes along. Cylinders, like agitators, vary in design.

*Vacuum cup.*--The vacuum-cup device works like the plunger or "funnel-on-a-stick" sometimes used as an aid when washing by hand. Bell-shaped cups, usually three or four in number, are fastened



to arms on a center shaft. They move up and down, and may have a circular motion also. The cups pull the clothes up through the water, then drop them back.

## OTHER FEATURES TO CHECK

When you are looking at washers, you'll want to check on all the features of the various makes and models you're considering. They'll help you judge whether a machine meets your needs.

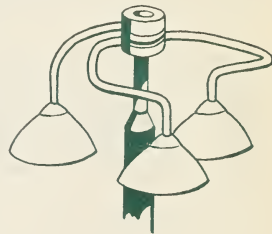
### You'll Want These

*Control levers conveniently placed.*--Note location of levers that start and stop washer, the safety release for the wringer. Can you reach them easily as you are working at the machine?

*Casters that roll easily.*--If you move your washer each time you use it, large rubber-covered swivel casters will make for easy rolling--and the rubber protects the floor. A lock on the casters, or caster cups, will hold the machine steady when in use.

*Water line easy to see.*--A water line on tub or washing mechanism aids you in filling the tub with the right amount of water. Be sure the water line is easy to see.

*Grounding device.*--A means of grounding the washer frame to avoid electric shock if electric insulation fails.

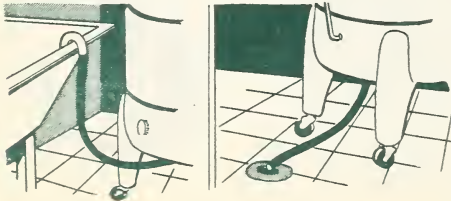


## Which of These do You Want?

*Pump or gravity drain?* An electric pump that empties your washing machine is a labor saver, especially if your laundry does not have a floor drain. The additional cost is small compared with the time and energy the pump saves.

With a floor drain, a gravity drain on the washer--an outlet for water at bottom of tub--is satisfactory. Be sure outlet is threaded so a hose can be screwed on.

See that tub drain has screen or strainer to prevent clogging with lint, buttons, small articles like socks. See too that outlet is placed so tub will drain completely.



*Tub cover attached or removable?* On most washing machines the tub cover is removable; on a few the lid is hinged to the tub. A hinged cover makes a useful shelf when open, but it may be hard to work around. If cover is removable, you'll want one that hangs on the tub out of the way when not in use. A rubber gasket helps make a removable lid fit snugly and prevents splashing.

*Adjustable or stationary legs?* Some washers have adjustable legs so tub can be raised or lowered to suit height of person using the machine. If you're exceptionally tall or short, this feature is important. Adjustable legs also provide a means of leveling the machine.

*Cord reel or cord holder?* With a cord reel the cord rolls itself up out of the way when it's disconnected. The reel is handy and may lengthen the life of the cord.

Instead of a cord reel, some machines have large hooks on which to wind the cord when it's not in use. These hooks are underneath the tub or on the wringer shaft.

## TO GET A GOOD VALUE

Many factors enter into the price of a washing machine--design, quality of materials, workmanship, capacity, special features. And whatever the price you pay, you want a good value.

You can usually judge for yourself whether a washer will be easy to operate, easy to care for. You can find out how big a load it will take, what special features it offers. But in materials and construction many values are hidden. You won't be able to tell how good a washing job the machine will do or how long it will last.

Look for the seal of the Underwriter's Laboratories on any washer you buy--it stands for safety. It means that the motor and all the electrical connections have been approved as safe. There are no labels to tell you what more to expect in construction and performance, as no national standards have been set up to serve as a buying guide.

Best assurance of getting a good value is to buy a washer made by a reliable manufacturer. With a machine of dependable make you can expect a satisfactory return in service for your money.

### The Guarantee

Most manufacturers guarantee the materials and workmanship in their washing machines for a certain length of time--usually 3 months to a year. If parts prove defective during the period covered by the guarantee, repairs or replacements will be made without charge. Read any guarantee carefully to find out just what it includes.

Usually the manufacturer arranges to have the service supplied through a local dealer. So it's wise to buy in your own locality, from a dealer who has a dependable service department.

# Good care for your machine

## Guard Against Trouble

To get the best service from your washing machine and make it last, take care of it.

The first step in good care is to learn how to guard against unnecessary wear and tear. Here are some things you can do to keep your washer operating as it should and to lengthen its life.

*Know your machine.*--Whether your washer is old or new, whatever the type, read the directions that came with it. If you've lost them, write the manufacturer for another copy. Even if you've used the machine many times, reread the directions occasionally to be sure you are following all the special instructions for use and care of the washer.

*Check voltage and current.*--If you're buying a new machine, be sure it is designed for your electric system. Check the voltage and the kind of current--whether alternating

or direct. If alternating, find out the number of cycles. The name plate on the washer motor states the kind of current.

If you move, be sure the current in your house is right for your machine. If it is not, you will have to change the motor.

*Tighten and oil.*--To keep washer in good condition, check occasionally to see that all bolts and screws in the frame are tight.

Follow manufacturer's directions for oiling. Some machines are permanently lubricated at the factory. The manufacturer's directions usually tell how much to oil the machine for use once a week. If you wash oftener you may need to oil more often. Learn from your manufacturer's directions when, where, and how much to oil and what kind of oil to use. Too much or the wrong kind is just as harmful as too little oil.

Castors need frequent oiling because they often get wet and the metal parts may rust.

Take care not to spill oil on any rubber parts because oil ruins rubber. If oil gets on rubber, remove it at once with soap and water; then rinse in clear water and dry with a soft cloth. If washer gets tipped and oil is spilled from around the gears, have a serviceman check the machine and replace spilled oil if needed.

*Watch for wear and tear.*--Protect your machine against bangs, bumps, and jerks that may injure the motor, dent the metal, or chip the finish of the tub.

At the first sign that anything is out of order, have a reliable serviceman check and make needed repairs.

### When You Wash

Different types of washing machines require different directions for good performance. Follow any special instructions for your particular machine.

The following general directions apply to nonautomatic washers.

*Get the machine ready.*--Before you start washing see that the machine stands level, with casters locked or set in caster cups to keep it from rolling.

If the washer has been standing in a cold place, the oil or grease in an electric or engine-driven machine may be so stiff that the effort to run the machine will overload the motor or blow a fuse. In that case, bring the machine into a warm room for a few hours, or let the tub stand full of warm water for an hour before you start washing. Never pour hot water into a very cold porcelain-enamel tub. Sudden changes in temperature may crack porcelain enamel.

*Safeguard electrical connections.*--When you connect or disconnect the plug of an electric washer, stand on a dry floor and be sure your hands are dry. A rubber floor mat will give you extra protection against an electric shock. Connect plug to an appliance outlet or to a porcelain socket. To save undue wear on the cord, grasp the plug, not the cord, when you disconnect it.



Keep cord clean and dry--away from direct sunlight, heat, and oil. Never roll the washer over it. Keep cord and plug in good repair.

If your washer blows a fuse, replace with the size fuse required by the wiring in the circuit. The use of too large a fuse is a dangerous practice.

*Fill the tub.*--Put in enough water so it will reach the water line when the clothes are put in. You'll soon learn the right amount by experience. If tub is too full water may run down the center shaft into the oil and gear case and make trouble that requires a repairman. Too little water does a poor washing job.

Start the motor before you put the clothes in the water.

*Measure the load.*--Your washer is designed to wash a certain number of clothes. Put in only the load the manufacturer recommends. Too many clothes may overload the motor. And most machines will not wash the clothes as well if overloaded or underloaded.

*Use wringer with care.*--Before every washing, test the safety release on the wringer to be sure it is working. Keep hands away from wringer as clothes are going through. Flip an end of the piece onto the moving roll and let the wringer carry it through. Watch wringer as each piece starts through to be sure it does not wrap around the roll.

If wringer rolls are not self-adjusting be sure they are set to the right pressure for the thickness of the clothes. Too much pressure is hard on wringer and motor; too little does not wring the clothes dry enough.

Protect wringer and clothes, prevent unnecessary wrinkles by running pieces through in smooth folds. Too bulky a load may cause clothes to jam in wringer and even strip the gears. Save rubber rolls and clothes by folding in buckles, zippers, and buttons.

*Load spinner evenly.*--If your washer has a separate spinner tub, pack the clothes into the basket a few at a time so the weight is evenly distributed. This cuts down vibration of the spinner.



## After-washing Care

To keep your washer in good condition see that it's clean and dry when put away.

*Protect wringer rolls.*--When the washing is done, release the pressure on the wringer rolls. Flat spots come from leaving the rolls pressed together.

After every wash, clean and dry the rolls. If they are easy to remove, take them out, wash in warm soapy water, rinse in clear water, wipe dry, and replace. If the rolls do not come out easily, wash, rinse, and dry them in place.

*Clean the tub and the drain.*--Drain water from tub and remove washing mechanism, if it can be taken out. Remove all lint from the drain screen. If tub has a drain trap or strainer, remove, clean, and replace it.

Wash inside of the tub, inside and outside of the washing mechanism, and the shaft, with warm soapy water. Rinse, flushing the drain with clear water. Wipe dry.

Wash outside of machine with soap and water, rinse, and dry. If finish is synthetic enamel, wax it every few months to save the finish.

In a spinner machine, wash and dry spinner tub just as you do the washer tub. Also wash and dry the spinner basket, taking it out if possible.

Drain all the water from the hose by placing the open end over floor drain or a pan set on the floor.

*To store.*--Leave the drain open to air and dry. All parts except washing mechanism can go back in place ready for the next wash. Lay washing mechanism in the tub. Leave lid of tub slightly ajar.

After the machine is dry, cover it. You can buy or make a dustproof cover that slips over the entire machine. At least have a cover for the wringer to protect the rubber. Covers of waterproof cloth are best for machines kept on open porches or in other exposed places.

Subject matter: V. Enid Sater, Lenore E. Sater

Presentation: Writing, Ruth A. Chalmers  
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